

## Patent claims

1. Method of joint data transmission of digital source  
data and control data between data sources and data  
5 sinks that are subscribers (10, 11, 12, 13) of a uni-  
directionally operated communication network (1)  
having a ring configuration,  
in which source data and control data are  
transmitted in a format which prescribes a clocked  
10 sequence of individual bit groups (2) of the same bit  
width which are transmitted in a continuous data  
stream, in each case specific bit positions  
predetermined by the format are reserved,  
in which the subscribers (10, 11, 12, 13) sample  
15 data in each case with a first sampling frequency and  
the communication network samples data with a second  
sampling frequency, which is an integral multiple of  
the first sampling frequency,  
in which, within each bit group (2), at least one  
20 contiguous region (23) with a predetermined number of  
bit positions can be reserved for source data and the  
contiguous region(s) are in each case assigned to a  
subscriber address,  
in which at least one contiguous region (23)  
25 within a bit group (2) is in each case assigned a  
significant bit position (23a), which in the case of  
one of the subscribers (10, 11, 12, 13) is set to a  
first logic level ("1") and in the case of all the  
other subscribers is set to an opposed, second logic  
30 level ("0").
2. Method according to claim 1, characterized in that the  
first sampling frequency and the second sampling  
frequency are synchronized to a clock-pulse signal.
- 35 3. Method according to one of the preceding claims,

characterized in that, for at least one subscriber (10, 11, 12, 13), the second sampling frequency has any desired phase shift with respect to the first sampling frequency.

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4. Method according to one of the preceding claims, characterized in that the multiple of the first sampling frequency corresponds exactly to the number of subscribers (10, 11, 12, 13) of the communication network (1).

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5. Method according to one of claims 1 to 4, characterized in that the number of subscribers (10, 11, 12, 13) of the communication network (1) is an integral multiple of the multiple of the first sampling frequency.

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6. Method according to one of the preceding claims, characterized in that the significant bit position within the contiguous region is the least-significant bit position (LSB) for source data.

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7. Method according to one of the preceding claims, characterized in that at least some of the subscribers (10, 11, 12, 13) of the communication network (1) are designed as microphone units, the corresponding analog audio signals being sampled from the assigned microphone units and fed to the communication network (1) in the form of digital signals.

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8. Use of a method according to one of the preceding claims, characterized in that the communication network (1) is designed as a MOST network for use in a motor vehicle and/or in the household.

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